

REMARKS

This Amendment and Response to Final Office Action is being submitted in response to the final Office Action mailed May 3, 2006. Claims 1-25 are pending in the Application.

Claims 1-4, 6, 8, and 12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson et al. in view of Applicants' admitted prior art in further view of Simmons et al. (US 6,167,054).

Claim 5 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson et al. in view of Applicants' admitted prior art in further view of Tanenbaum.

Claims 9-11 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson et al. in view of Applicants' admitted prior art in further view of Simmons et al. in further view of Tanenbaum.

Claim 7 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson et al. in view of Applicants' admitted prior art in further view of Simmons et al. in further view of Ramakrishnan (US 6,167,029).

Claims 24 and 25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over DeLuca et al. (US 6,792,455) in view of Applicants' admitted prior art.

In response to these rejections, the Claims have been amended herein, without prejudice or disclaimer to continued examination on the merits. These amendments are fully supported in the Specification, Drawings, and Claims of the Application and no new matter has been added. Based upon the amendments, reconsideration of the Application is respectfully requested in view of the following remarks.

Rejection of Claims 1-4, 6, 8, and 12 Under 35 U.S.C. 103(a) - Stevenson et al. and Simmons et al.:

Claims 1-4, 6, 8, and 12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson et al. in view of Applicants' admitted prior art in further view of Simmons et al.

Examiner recognizes that Stevenson et al. neither teach nor suggest 1) gathering statistical data on at least one card within the network device periodically, 2) wherein each packet includes at least a portion of the statistical data, or 3) said time being based on an estimate of a time interval needed by the central process to process a sufficient number of the received packets to reduce the number of packets awaiting processing below a predetermined threshold.

However, Examiner states that these limitations would be obvious, in further view of Simmons et al., to one of ordinary skill in the art at the time the invention was made to include such limitations. Applicants respectfully disagree and note that, as amended, Claim 1 more clearly differentiates the present invention from the cited references.

Claim 1 has been amended to recite:

A method of managing distributed statistical data retrieval in a network device, comprising:

a. gathering statistical data on at least one card within the network device periodically, *wherein, upon each start, upgrade, or reboot, a device driver on the at least one card informs a usage data monitoring library on the at least one card which statistical data the device driver is able to gather;*

b. sending a predetermined number of packets from the card to a central process, *wherein one of the predetermined number of packets is a registration packet comprising one or more string names corresponding to the types of statistical data that the usage data monitoring library will send to the central process,* wherein each packet

includes at least a portion of the statistical data, and wherein the predetermined number of packets is determined via a negotiation between the card and the central process upon a registration of the card with the central process;

c. sending an acknowledge request to the central process in conjunction with sending the last packet in the predetermined number; and

d. controlling the number of packets sent from the card to the central process, including:

sending an acknowledge packet from the central process to the card indicating a time that the card can resume sending packets to the central process, said time being based on an estimate of a time interval needed by the central process to process a sufficient number of the received packets to reduce the number of packets awaiting processing below a predetermined threshold, *wherein the controlling the number of packets sent from the card to the central process load balances the statistical data across a control plane, smoothes out control plane bandwidth utilization, and reduces data buffering and data loss,*

repeating steps b, c and d when the acknowledge packet is received at the card and the time indicated has elapsed.

These amendments are fully supported in the Specification, Drawings, and Claims of the Application and no new matter has been added.

Stevenson et al. fail to teach or suggest gathering statistical data on at least one card within the network device periodically, *wherein, upon each start, upgrade, or reboot, a device driver on the at least one card informs a usage data monitoring library on the at least one card which statistical data the device driver is able to gather*, sending a predetermined number of packets from the card to a central process, *wherein one of the predetermined number of packets is a registration packet comprising one or more string names corresponding to the types of statistical data that the usage data monitoring library will send to the central process; and wherein the controlling the number of packets sent from the card to the central process load balances the statistical data across a control plane, smoothes out control plane bandwidth utilization, and reduces data buffering and data loss.* Additionally, the deficiencies of Stevenson et al. are not remedied by Simmons et al.

Claims 2-4, 6, 8, and 12 are dependent claims directly dependent on Claim 1. Based on the same unique and novel features of the present invention as described above, namely that Claim 1 has unique and patentable novel features, it is respectfully asserted that these dependent claims are now in condition for allowance.

Therefore, Applicants submit that the rejection of Claims 1-4, 6, 8, and 12 under 35 U.S.C. 103(a) as being unpatentable over Stevenson et al. in view of Applicants' admitted prior art in further view of Simmons et al. has now been overcome and respectfully request that this rejection be withdrawn.

Rejection of Claim 5 Under 35 U.S.C. 103(a) - Stevenson et al. and Tanenbaum:

Claim 5 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson et al. in view of Applicants' admitted prior art in further view of Tanenbaum.

Examiner recognizes that Stevenson et al. neither teach nor suggest sending an acknowledge packet from the central process to the card, comprises: detecting an acknowledge request at the central process in a packet received from the card; determining a number of packets to be processed by the central process; comparing the number of packets to be processed to a predetermined threshold periodically; and sending the acknowledge packet to the card from the central process when the number of packets to be processed is less than the predetermined threshold.

However, Examiner states that these limitations would be obvious, in further view of Tannenbaum, to one of ordinary skill in the art at the time the invention was made to include such limitations. Applicants respectfully disagree and note that, as amended, Claim 5 more clearly differentiates the present invention from the cited references.

Claim 5 has been amended to recite:

A method of managing distributed statistical data retrieval in a network device, comprising:

a. gathering statistical data on at least one card within the network device periodically, *wherein, upon each start, upgrade, or reboot, a device driver on the at least one card informs a usage data monitoring library on the at least one card which statistical data the device driver is able to gather;*

b. sending a predetermined number of packets from the card to a central process, *wherein one of the predetermined number of packets is a registration packet comprising one or more string names corresponding to the types of statistical data that the usage data monitoring library will send to the central process,* wherein each packet includes at least a portion of the statistical data, and wherein the predetermined number of packets is determined via a negotiation between the card and the central process upon a registration of the card with the central process;

c. sending an acknowledge request to the central process in conjunction with sending the last packet in the predetermined number; and

d. controlling the number of packets sent from the card to the central process, including:

 sending an acknowledge packet from the central process to the card; and

 repeating steps b, c and d when the acknowledge packet is received at the card,

 wherein sending an acknowledge packet from the central process to the card, comprises:

 detecting an acknowledge request at the central process in a packet received from the card;

 determining a number of packets to be processed by the central process;

 comparing the number of packets to be processed to a predetermined threshold

 periodically; and

 sending the acknowledge packet to the card from the central process when the number of packets to be processed is less than the predetermined threshold, and

wherein the controlling the number of packets sent from the card to the central process load balances the statistical data across a

control plane, smoothes out control plane bandwidth utilization, and reduces data buffering and data loss.

These amendments are fully supported in the Specification, Drawings, and Claims of the Application and no new matter has been added.

Therefore, Applicants submit that the rejection of Claim 5 under 35 U.S.C. 103(a) as being unpatentable over Stevenson et al. in view of Applicants' admitted prior art in further view of Tanenbaum has now been overcome and respectfully request that this rejection be withdrawn.

Rejection of Claims 9-11 and 13 Under 35 U.S.C. 103(a) - Stevenson et al., Simmons et al., and Tanenbaum:

Claims 9-11 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson et al. in view of Applicants' admitted prior art in further view of Simmons et al. in further view of Tanenbaum.

The above arguments with respect to independent Claim 1 apply with equal force here.

Claims 9-11 and 13 are dependent claims either directly or indirectly dependent on Claim 1. Based on the same unique and novel features of the present invention as described above, namely that Claim 1 has unique and patentable novel features, it is respectfully asserted that these dependent claims are now in condition for allowance.

Therefore, Applicants submit that the rejection of Claims 9-11 and 13 under 35 U.S.C. 103(a) as being unpatentable over Stevenson et al. has now been overcome and respectfully request that this rejection be withdrawn.

Rejection of Claim 7 Under 35 U.S.C. 103(a) - Stevenson et al., Simmons et al., and Ramakrishnan:

Claim 7 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson et al. in view of Applicants' admitted prior art in further view of Simmons et al. in further view of Ramakrishnan (US 6,167,029).

The above arguments with respect to independent Claim 1 apply with equal force here.

Claim 7 is a dependent claim either directly or indirectly dependent on Claim 1. Based on the same unique and novel features of the present invention as described above, namely that Claim 1 has unique and patentable novel features, it is respectfully asserted that these dependent claims are now in condition for allowance.

Therefore, Applicants submit that the rejection of Claim 7 under 35 U.S.C. 103(a) as being unpatentable over Stevenson et al. in view of Applicants' admitted prior art in further view of Simmons et al. in further view of Ramakrishnan has now been overcome and respectfully request that this rejection be withdrawn.

Rejection of Claims 24 and 25 Under 35 U.S.C. 103(a) - DeLuca et al.:

Claims 24 and 25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over DeLuca et al. (US 6,792,455) in view of Applicants' admitted prior art.

Examiner recognizes that DeLuca et al. fail to teach or suggest gathering a plurality of different types of statistical data on at least one card within the network device periodically or wherein a size of each of the groups of packets is determined via

a negotiation between the card and the central process upon a registration of the card with the central process.

However, Examiner states that these limitations would be obvious, in view of view of Applicants' admitted prior art, to one of ordinary skill in the art at the time the invention was made to include such limitations. Applicants respectfully disagree and note that, as amended, Claim 24 more clearly differentiates the present invention from the cited references.

Claim 24 has been amended to recite:

A method of managing distributed statistical data retrieval in a network device, comprising:

gathering a plurality of different types of statistical data on at least one card within the network device periodically, *wherein, upon each start, upgrade, or reboot, a device driver on the at least one card informs a usage data monitoring library on the at least one card which statistical data the device driver is able to gather*; and

sending groups of packets from the card to a central process at staggered times, wherein each group of packets includes one of different types of statistical data wherein the staggered times are determined by a plurality of polling timers, each corresponding to one of said statistical data types, *wherein one of the packets is a registration packet comprising one or more string names corresponding to the types of statistical data that the usage data monitoring library will send to the central process*, and wherein a size of each of the groups of packets is determined via a negotiation between the card and the central process upon a registration of the card with the central process; and

wherein the sending groups of packets from the card to a central process at staggered times load balances the statistical data across a control plane, smoothes out control plane bandwidth utilization, and reduces data buffering and data loss.

Claim 25 is a dependent claim directly dependent on Claim 24. Based on the same unique and novel features of the present invention as described above, namely that

Claim 1 has unique and patentable novel features, it is respectfully asserted that these dependent claims are now in condition for allowance.

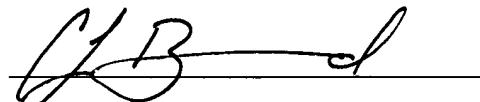
Therefore, Applicants submit that the rejection of Claims 24 and 25 under 35 U.S.C. 103(a) as being unpatentable over DeLuca et al. in view of Applicants' admitted prior art has now been overcome and respectfully request that this rejection be withdrawn.

CONCLUSION

Applicants would like to thank Examiner for the attention and consideration accorded the present Application. Should Examiner determine that any further action is necessary to place the Application in condition for allowance, Examiner is encouraged to contact undersigned Counsel at the telephone number, facsimile number, address, or email address provided below. It is not believed that any fees for additional claims, extensions of time, or the like are required beyond those that may otherwise be indicated in the documents accompanying this paper. However, if such additional fees are required, Examiner is encouraged to notify undersigned Counsel at Examiner's earliest convenience.

Respectfully submitted,

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